FAST FACTS AND CONCEPTS #257
PALLIATIVE CARE PER RECTUM

Renato V Samala MD and Mellar P Davis MD

Background  Ever since the days of Hippocrates, medications have been administered through the rectum. This Fast Fact introduces the use of rectal medications for patients in palliative care settings.

Indications & Benefits  Rectal administration can be considered when patients have conditions that preclude use of the oral route, such as nausea and vomiting, decreased mental status, severe dysphagia or odynophagia, and gastrointestinal tract obstruction or impaired absorption. Rectally administered medications are easy to use, require minimal family education, and are inexpensive compared to the subcutaneous or intravenous routes. Additional advantages are the option for self-administration and relatively reliable and predictable drug absorption by the rectum. Since most oral symptom medications used in palliative care can be given rectally (e.g. most opioids, benzodiazepines, glucocorticoids, anti-emetics), a rapidly declining patient at home who can no longer take anything by mouth can often be managed with rectal medications instead of transporting the patient or ordering new drugs.

Contraindications & Cautions  The rectal route should be avoided in patients with neutropenia, thrombocytopenia, diarrhea, anorectal disease (e.g., perianal abscess and fistulas), and prior abdominoperineal resection. Giving drugs rectally may cause local irritation, producing an inconvenient and uncomfortable sensation of the need to defecate. Serious complications, usually associated with prolonged use of ergotamine, acetylsalicylic acid, and acetaminophen, are rectal ulceration, necrosis, and stenosis. Suppositories are radiopaque and may be mistaken for contrast material or bladder or kidney stones. Some patients and caregivers find rectal administration objectionable.

Drug Considerations
1. The bioavailability of drugs given rectally is highly variable and influenced by the site of insertion. First-pass metabolism is avoided in the lower part of the rectum drained by the middle and inferior rectal veins which return to the inferior vena cava. The upper rectum, on the other hand, is drained by the superior rectal vein which empties into the portal system. Therefore, it is difficult to predict how much of the drug will enter the portal circulation due to extensive anastomoses between the rectal veins.
2. Drugs administered through the rectum, especially opioids, are dosed similarly as when given orally.
3. A non-controlled study in cancer patients showed that unmodified MS Contin when transitioned to a rectal route, continued to provide effective in 39 terminally ill patients. Hence, rectal administration of long acting formulations of oral opioids is felt to be safe and effective.
4. Though there are a limited number of commercially available drugs specifically manufactured for rectal administration, any pill can be given rectally. A special formulated suppository merely assists in its retention and is not required for efficacy. If consistent use is necessary, almost any medication can be compounded into custom-made suppositories, gelatin-encased capsules, or microenemas of oral elixirs. Pertinent drugs which have acceptable rectal bioavailabilities are listed below; those marked with an asterisk (*) are commercially available as a suppository or enema in the US.
Guidelines for Rectal Medication Administration

1. Rectum should be emptied prior to insertion as stool interferes with drug absorption.
2. Insert the drug about a finger's length into the rectum and place against the rectal wall.
3. Tolerance is the same whether the suppository's apex or base is inserted first, but retention is superior when the base (blunt end) is inserted first. The lower edge of the external sphincter contracts along the edge of the apex and forces the suppository upwards facilitating retention.
4. 10 ml warm water can be inserted via syringe to assist dissolution of the suppository or suspension.
5. Keep volume of drug preparation less than 60 ml to avoid spontaneous expulsion before absorption.

Bottom Line  The rectal route is an efficient and practical alternative in administering a broad array of palliative care medications to patients with a compromised oral route.

References:

Authors’ Affiliation: The Harry R. Horvitz Center for Palliative Medicine, Cleveland Clinic, Cleveland, OH.

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